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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,403	11/12/2003	Timothy Allen	81045186	6878
28866	7590	06/20/2005	EXAMINER	
MACMILLAN, SOBANSKI & TODD, LLC ONE MARITIME PLAZA - FOURTH FLOOR 720 WATER STREET TOLEDO, OH 43604			PANG, ROGER L	
			ART UNIT	PAPER NUMBER
			3681	

DATE MAILED: 06/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/706,403

Applicant(s)

ALLEN ET AL.

Examiner

Roger L. Pang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

The following action is in response to the amendment filed for application 10/706,403 filed on May 23, 2005.

#### ***Claim Objections***

Claim 1 is objected to because of the following informalities: on line 6, the period should be replaced with a semi-colon. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

With regard to claim 14, Hayakawa teaches a transfer case for a four wheel drive vehicle comprising: an automatic transmission 10 with an output shaft 32; a planetary gear set 40 with a sun gear 44, a planet gear carrier and a ring gear 47; a first clutch C-3; a second clutch B-4; a primary output device 41; a secondary output device 42; and a third clutch C-4. With regard to claim 15, Hayakawa teaches the drivetrain, wherein the transfer case includes a first transfer case fluid passage having a first end operatively engaging the first clutch and a second end, and the transmission further includes a valve body with at least three control valves, and the first end of a first transmission fluid passage is in communication with a first one of the at least three control valves and the second end in fluid communication with the second end of the first transfer case

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fluid passage, whereby the hydraulic fluid pressure selectively employed to engage and disengage the first clutch is supplied by the first one of the at least three control valves in the transmission (Fig. 7; Fig. 4). With regard to claim 16, Hayakawa teaches the drivetrain, wherein the transfer case includes a second transfer case fluid passage having a first end operatively engaging the second clutch and a second end, and the first end of a second transmission fluid passage is in communication with a second one of the at least three control valves and the second end in fluid communication with the second end of the second transfer case fluid passage, whereby the hydraulic fluid pressure selectively employed to engage and disengage the second clutch is supplied by the second one of the at least three control valves in the transmission (Fig. 7; Fig. 4). With regard to claim 17, Hayakawa teaches the drivetrain, wherein the transfer case includes a third transfer case fluid passage having a first end operatively engaging the third clutch and a second end, and the first end of a first transmission fluid passage is in communication with a third one of the at least three control valves and the second end in fluid communication with the second end of the third transfer case fluid passage, whereby the hydraulic fluid pressure selectively employed to engage and disengage the third clutch is supplied by the third one of the at least three control valves in the transmission (Fig. 7; Fig. 4). With regard to claims 18 and 19, Hayakawa teaches the case, wherein the first clutch actuating and de-actuating by increasing and reducing hydraulic pressure, respectively (Fig. 2); the second clutch actuating and de-actuating by increasing and reducing hydraulic pressure, respectively (Fig. 2); and the third clutch actuating and de-actuating by increasing and reducing hydraulic pressure, respectively (Fig. 2). With regard to claim 20, Hayakawa teaches the drivetrain,

wherein the transmission 10 includes three planetary gear sets Po/P1/P2 for selectively transmitting torque from the transmission input to the transmission output.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayakawa '262 in view of Yu '009. With regard to claim 1, Hayakawa teaches a transfer case for a four wheel drive vehicle comprising: an automatic transmission 10 with an output shaft 32; a transfer case 16; a planetary gear set 40 with a sun gear 44, a planet gear carrier and a ring gear 47; a first clutch C-3; a second clutch B-4; a primary output device 41; a secondary output device 42; and a third clutch C-4. Hayakawa lacks the teaching, wherein the clutch and planetary arrangement comprise of the ring gear driveably connected to the output shaft. Yu teaches a transfer case for a four wheel drive vehicle, comprising: a planetary gear set drivable by the transmission output shaft 18 and having a sun gear 102, a planet gear carrier 106 assembly and a ring gear 108 driveably connected to the output shaft; a first clutch 110 alternately driveably engaging and disengaging the carrier and sun gear of the planetary gear set; a second clutch 116 alternatively driveably engaging and disengaging the sun gear of the planetary gear set and the transfer case, a primary output device 30; a secondary output device 32; and a third clutch 94 operatively engaging the primary output device and secondary output device. It would have been obvious to

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one of ordinary skill in the art at the time of the invention to modify Hayakawa to employ the planetary arrangement in view of Yu, in order to provide underdrive ratios for different applications (paragraph 37). With regard to claim 2, Hayakawa teaches the case, wherein the first clutch actuating and de-actuating by increasing and reducing hydraulic pressure, respectively (Fig. 2). With regard to claim 3, Hayakawa teaches the case, further a first hydraulic fluid passage having a first end operatively engaging the first clutch and a second end to operatively engage a hydraulic fluid passage in the transmission whereby the fluid pressure employed to engaged and disengage the first clutch is suppliable by the transmission (Fig. 7). With regard to claim 4, Hayakawa teaches the second clutch actuating and de-actuating by increasing and reducing hydraulic pressure, respectively (Fig. 2). With regard to claim 5, Hayakawa teaches the case, further a first hydraulic fluid passage having a first end operatively engaging the second clutch and a second end to operatively engage a hydraulic fluid passage in the transmission whereby the fluid pressure employed to engaged and disengage the second clutch is suppliable by the transmission (Fig. 7). With regard to claim 6, Hayakawa teaches the third clutch actuating and de-actuating by increasing and reducing hydraulic pressure, respectively (Fig. 2). With regard to claim 7, Hayakawa teaches the case, further a first hydraulic fluid passage having a first end operatively engaging the third clutch and a second end to operatively engage a hydraulic fluid passage in the transmission whereby the fluid pressure employed to engaged and disengage the third clutch is suppliable by the transmission (Fig. 7). With regard to claim 8, see rejections of claims 2, 4 and 6. With regard to claim 9, see rejections of claims 3, 5, and 7. With regard to claim 10, Hayakawa teaches the case, wherein the first clutch C-3 is a high range clutch. With regard to claim 11, Hayakawa teaches the case, wherein

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the second clutch B-4 is a low range clutch. With regard to claim 12, see rejections of claims 1 and 10. With regard to claim 13, see rejections of claims 3, 5, and 7.

### *Response to Arguments*

Applicant's arguments with respect to claims 1 and 12 have been considered but are moot in view of the new ground(s) of rejection.

Applicant did not amend or argue the rejections for claims 14-20.

### *Conclusion*

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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### FACSIMILE TRANSMISSION

Submission of your response by facsimile transmission is encouraged. Group 3600's facsimile number is (703) 305-3597. Recognizing the fact that reducing cycle time in the processing and examination of patent applications will effectively increase a patent's term, it is to your benefit to submit responses by facsimile transmission whenever permissible. Such submission will place the response directly in our examining group's hands and will eliminate Post Office processing and delivery time as well as the PTO's mail room processing and delivery time. For a complete list of correspondence not permitted by facsimile transmission, see MPEP 502.01. In general, most responses and/or amendments not requiring a fee, as well as those requiring a fee but charging such fee to a deposit account, can be submitted by facsimile transmission. Responses requiring a fee which applicant is paying by check should not be submitting by facsimile transmission separately from the check.



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Responses submitted by facsimile transmission should include a Certificate of Transmission (MPEP 512). The following is an example of the format the certification might take:

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Typed or printed name of person signing this certificate:

\_\_\_\_\_  
\_\_\_\_\_

(Signature)


If your response is submitted by facsimile transmission, you are hereby reminded that the original should be retained as evidence of authenticity (37 CFR 1.4 and MPEP 502.02). Please do not separately mail the original or another copy unless required by the Patent and Trademark Office. Submission of the original response or a follow-up copy of the response after your response has been transmitted by facsimile will only cause further unnecessary delays in the processing of your application; duplicate responses where fees are charged to a deposit account may result in those fees being charged twice.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roger L. Pang whose telephone number is 571-272-7096. The examiner can normally be reached on 5:30am to 4:00pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Roger L Pang  
Primary Examiner  
Art Unit 3681

June 15, 2005